

I CLAIM:

1. A durable portable radio for tradesworkers comprising:  
a weather and impact resistant enclosure having an exterior surface and an interior space;  
radio receiver means for receiving radio signals and generating electronic audio output signals responsive thereto;  
said exterior surface having a plurality of planar surfaces,  
a foldable antenna insertable within a recess extending below one planar surface of said plurality of surfaces,  
a handle comprising a slot extending through a pair of opposite planar surfaces of said radio,  
a ventilation opening extending from said interior space of said radio,  
a first power source including an electrical cord engageable with an electrical outlet, and  
an second power source including an adapter engageable with a secondary direct current power source.

2. The durable portable radio for tradesworkers as in Claim 1 wherein said weather and impact resistant enclosure comprises at least one downward angled louvered grill covering at least one moisture resistant loudspeaker.

3. The durable portable radio for tradesworkers as in Claim 1 wherein said weather and impact resistant enclosure comprises a moisture resistant sound transmittable insulating layer between said louvered grill and said loudspeaker.

4. The durable portable radio for tradesworkers as in Claim 1 wherein said weather and impact resistant enclosure includes a plurality of waterproof push buttons for on/off control, volume adjustment, AM/FM selection and frequency tuning.

5. The durable portable radio for tradesworkers as in Claim

1 wherein said weather and impact resistant enclosure includes a hydrophobic air permeable layer therein.

6. The durable portable radio for tradesworkers as in Claim 1 wherein said first power source includes a retractable line cord, said line core retractable within a subhousing enclosure within said weather resistant enclosure.

7. The durable portable radio for tradesworkers as in Claim 1 wherein said weather and impact resistant enclosure comprises a acrylonitrile budadiene styrene covered by a layer of polyurethane.

8. The durable portable radio for tradesworkers as in Claim 1 wherein said weather and impact resistant enclosure comprises a resilient solid elastomer.

9. The durable portable radio for tradesworkers as in Claim 1 wherein said radio receiver means is shock mounted to an interior wall of said weather and impact resistant enclosure by a plurality of elastomeric blocks bonded to said interior wall of said weather and impact resistant enclosure.

10. The durable portable radio for tradesworkers as in Claim 9 wherein said radio receiver means comprises a circuit board, said circuit board being coated with a moisture resistant conformal coating.

11. The durable portable radio for tradesworkers as in Claim 9 wherein said moisture resistant conformal coating is acrylic.

12. The durable portable radio for tradesworkers as in Claim 9 wherein said moisture resistant conformal coating is paralyene.

13. The durable portable radio for tradesworkers as in Claim 1 further comprising at least one watertight formed in place gasket sealing openings within said weather and impact resistant enclosure.

14. The durable portable radio for tradesworkers as in Claim 1 wherein said radio receiver means includes a weather channel receiver.

15. The durable portable radio for tradesworkers as in Claim 1 wherein said second power source includes a battery pack having a voltage of between about 9.6 to about 18 volts.

16. The durable portable radio for tradesworkers as in Claim 15 wherein said battery pack of said second power source has a voltage of about 12 volts.

17. The durable portable radio for tradesworkers as in Claim 1 wherein said second power source further includes a combination power supply and battery charger supplied with 115 VAC, which supplies about 13.6 volts DC through a diode and a switch to said radio receiver means, a button causing said power supply to supply said voltage through said diode, said diode feeding current from said power supply to said radio receiver means.

18. The durable portable radio for tradesworkers as in Claim 17 further comprising a plurality of diodes acting as an automatic steering and isolation network to supply either AC supplied current, battery power or simultaneous power and battery charging from AC power.

19. The durable portable radio for tradesworkers as in Claim 17 further comprising a means to permit use of battery packs lower or higher than 12 volts to be used by said radio, said

means comprising a socket having a plurality of contacts mating with an adapter matching predetermined requirements of a DC source power battery pack, and a double pole single throw on/off switch controlling a DC/DC power source converter for supplying power to said radio.

20. A durable portable radio for tradesworkers comprising:

- a weather and impact resistant enclosure having an exterior surface and an interior space;
- a radio receiver means for receiving radio signals and generating electronic audio output signals responsive thereto;
- an exterior surface having a plurality of planar surfaces,
- a foldable antenna insertable within a recess extending below one planar surface of said plurality of surfaces,
- a handle comprising a slot extending through a pair of opposite planar surfaces of said radio,
- a ventilation opening extending from said interior space of said radio covered with a hydrophobic air permeable layer,
- a first power source including an electrical cord engageable with an electrical outlet;
- said line core retractable within a subhousing enclosure within said weather resistant enclosure;
- at least one downward angled louvered grill covering at least one moisture resistant loudspeaker;
- a moisture resistant sound transmittable insulating layer between said louvered grill and said loudspeaker;
- at least one watertight formed in place gasket sealing openings within said weather and impact resistant enclosure;
- a plurality of waterproof push buttons for on/off control, volume adjustment, AM/FM selection and frequency tuning;
- said radio receiver including a circuit board;
- said radio receiver circuit board being shock mounted to an interior wall of said weather and impact resistant enclosure by a plurality of elastomeric blocks bonded to said interior wall of

said weather and impact resistant enclosure;

said radio receiver circuit board being coated with a moisture resistant conformal coating;

said radio receiver means including a weather channel receiver;

a second power source including an adapter engageable with a secondary direct current power source,

said second power source including a battery pack having a voltage of between 9.6 to about 18 volts;

said second power source including a combination power supply and battery charger supplied with 115 VAC, which supplies about 13.6 volts DC through a diode and a switch to said radio receiver means, a button causing said power supply to supply said voltage through said diode, said diode feeding current from said power supply to said radio receiver means;

a plurality of diodes acting as an automatic steering and isolation network to supply either AC supplied current, battery power or simultaneous power and battery charging from AC power; and

a means to permit use of battery packs lower or higher than 12 volts to be used by said radio, said means comprising a socket having a plurality of contacts mating with an adapter matching predetermined requirements of a DC source power battery pack, and a double pole single throw on/off switch controlling a DC/DC power source converter for supplying power to said radio.